

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (canceled)
2. (previously presented) The pharmaceutical composition of claim 4, further comprising:
a carrier molecule that can be internalized by a living cell wherein the carrier molecule forms a conjugate with one or more Se(0) particles.
3. (canceled)
4. (previously presented) A pharmaceutical composition comprising:
elemental selenium (Se(0)) particles having a diameter of 0.4 to 5 nanometers;
and
a pharmaceutically acceptable delivering medium.
5. (previously presented) A pharmaceutical composition comprising:
elemental selenium (Se(0)) particles having a diameter of 0.4 to 1 nanometer; and
a pharmaceutically acceptable delivering medium.
6. (currently amended) ~~[[A]]~~ The pharmaceutical composition of claim 4,
~~comprising:~~
wherein the elemental selenium (Se(0)) particles ~~that~~ can form a Se(0) colloid in a
dispersion medium; ~~and~~
~~—— a pharmaceutically acceptable delivering medium.~~

7. (currently amended) A pharmaceutical composition comprising:
elemental selenium (Se(0)) particles having a diameter of 0.4 to 5 nanometers;
a target cell-specific carrier molecule that can be internalized by a living cell
wherein the carrier molecule forms a conjugate with one or more Se(0) particles; and
a pharmaceutically acceptable delivering medium.
~~The composition of claim 2, wherein the carrier molecule is target cell specific.~~
8. (original) The composition of claim 2, wherein the carrier molecule is selected from the group consisting of proteins, glycoproteins and lipoproteins.
9. (original) The composition of claim 2, wherein the carrier molecule is selected from the group consisting of albumin, high density lipoprotein, low density lipoprotein and very low density lipoprotein.
10. (currently amended) A pharmaceutical composition comprising:
elemental selenium (Se(0)) particles having a diameter of 0.4 to 5 nanometers;
a target cell-specific carrier molecule that can be internalized by a living target cell wherein the carrier molecule is albumin and forms a conjugate with one or more Se(0) particles; and
a pharmaceutically acceptable delivering medium.
~~The composition of claim 2, wherein the carrier molecule is albumin.~~
11. (currently amended) A pharmaceutical composition comprising:
elemental selenium (Se(0)) particles having a diameter of 0.4 to 5 nanometers;
a target cell-specific carrier molecule that can be internalized by a living target cell
~~The composition of claim 2, wherein the living cell is selected from the group consisting of a cancer cell, an immune cell responsible for an autoimmune disorder, an alloreactive lymphocyte responsible for graft-versus-host disease or a rejection reaction, a parasite and a parasitized blood cell, wherein the carrier molecule forms a conjugate with one or more Se(0) particles; and~~
a pharmaceutically acceptable delivering medium.

12. (currently amended) The composition of claim ~~2~~ 11, wherein the living target cell is a cancer cell.

13-25. (canceled)

26. (original) A method for generating Se(0) comprising the steps of:
providing a photosensitizing selone dye;
exposing the dye to light of a suitable wavelength in the presence of molecular oxygen; and
purifying Se(0).

27. (original) The method of claim 26, wherein the photosensitizing selone dye is selected from the group consisting of a selenomercocyanine dye and a selenooxonol dye.

28. (original) The method of claim 27, wherein the selenomercocyanine dye is selected from the group consisting of MC54, MC55, MC56 and MC57.

29. (original) The method of claim 26, wherein Se(0) is colloidal Se(0).

30. (original) The method of claim 26, wherein the light of suitable wavelength is generated by light-emitting diodes (LED).

31-51. (canceled)

52. (new) A method for causing a cancer cell to die comprising the step of:
treating the cancer cell, or a human or nonhuman subject having the cancer cell, with a composition that comprises Se(0) particles in an amount sufficient to kill the cancer cell.

53. (new) The method of claim 52, wherein the Se(0) particles have a diameter of 0.4 to 5 nanometers.

54. (new) The method of claim 52, wherein the Se(0) particles can form a Se(0) colloid in a dispersion medium.

55. (new) The method of claim 52, wherein the composition further comprises a carrier molecule that can be internalized by a cancer cell to form a conjugate with one or more Se(0) particles.

56. (new) The method of claim 55, wherein the carrier molecule is albumin.

57. (new) A method for sensitizing a cell to a cytotoxic agent wherein the cell is resistant to the cytotoxic agent due to the presence of intracellular glutathione, the method comprising the step of:

treating the cell, or a human or nonhuman subject having the cell, with a composition that comprises Se(0) particles wherein the cell becomes susceptible to the killing by an otherwise ineffective amount of the cytotoxic agent.

58. (new) A method for causing a cell to die wherein the cell is resistant to a cytotoxic agent due to the presence of intracellular glutathione, the method comprising the steps of:

treating the cell, or a human or nonhuman subject having the cell, with a composition that comprises Se(0) particles wherein the cell becomes susceptible to the killing by an otherwise ineffective amount of the cytotoxic agent; and

exposing the cell to said otherwise ineffective amount of the cytotoxic agent to kill the cell.

59. (new) The method of claim 58, wherein the composition further comprises a carrier molecule that can be internalized by the cell wherein the carrier molecule forms a conjugate with one or more Se(0) particles.

60. (new) The method of claim 58, wherein the cell is a cancer cell.

61. (new) A method for causing a cell to die wherein the cell is resistant to a cytotoxic agent due to the presence of intracellular glutathione wherein the cytotoxic agent is selected from the group consisting of ionizing radiation and alkylating agents, the method comprising the steps of:

treating the cell, or a human or nonhuman subject having the cell, with a composition that comprises Se(0) particles wherein the cell becomes susceptible to the killing by an otherwise ineffective amount of the cytotoxic agent; and

exposing the cell to said otherwise ineffective amount of the cytotoxic agent to kill the cell.

62. (new) A method of reducing intracellular glutathione level of a cell comprising the step of:

treating the cell, or a human or nonhuman subject having the cell, with a composition that comprises Se(0) particles in an amount sufficient to reducing intracellular glutathione level of the cell.

63. (new) The method of claim 52, wherein the method is for treating a human or nonhuman subject having cancer by administering a composition that comprises Se(0) particles having a diameter of 0.4 to 5 nanometers to the human or non-human subject.

64. (new) The method of claim 53, wherein the method is for treating a human or nonhuman subject having cancer by administering a composition that comprises Se(0) particles to the human or non-human subject wherein the Se(0) particles can form a Se(0) colloid in a dispersion medium.

65. (new) The method of claim 54, wherein the method is for treating a human or nonhuman subject having cancer by administering a composition that comprises Se(0) particles to the human or non-human subject.

66. (new) The method of claim 55, wherein the method is for treating a human or nonhuman subject having cancer by administering a composition that comprises Se(0) particles and a carrier molecule to the human or non-human subject wherein the carrier molecule can be internalized by a cancer cell and wherein the carrier molecule forms a conjugate with one or more Se(0) particles.